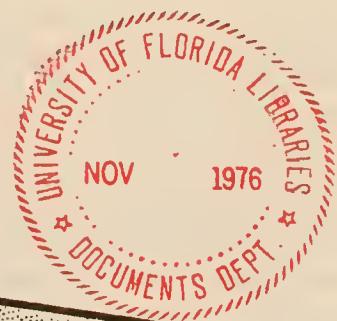


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REPORT NO. 4



## Cotton Fiber and Processing Test Results



CROP of

1976



Agricultural Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38122      October 22, 1976

## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1976

### Discussion of Test Results

The average Fibrograph 2.5% span length of short staple samples tested from the Southwest through October 15 is shorter than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are less uniform. The average fiber strength is considerably weaker than a year ago on the limited number of lots tested this season. Shirley Analyzer nonlint content is lower, while picker and card waste on the average is higher than last season. Yarns spun from these samples show considerably weaker yarn strength but approximately the same appearance and imperfection qualities as a year ago. The average spinning potential yarn number is lower.

Medium staple samples tested from the South Central area are slightly shorter and considerably finer than a year ago at this time. The average 1/8-inch gage fiber strength is weaker. Picker and card waste is higher. Generally the yarn qualities are better than a year ago. Yarns spun from these samples show stronger skein strength and higher appearance grades than a year ago. There are fewer imperfections. The average spinning potential yarn number is higher.

Medium staple samples tested from the Southwest show cotton fibers to be slightly longer and finer than a year ago. Picker and card waste is higher. Yarns spun from these samples show approximately the same yarn properties as a year ago except for having slightly fewer imperfections.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.<sup>1/</sup> These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

<sup>1/</sup> Summary of Cotton Fiber and Processing Test Results, Crop of 1975,  
USDA, AMS, Cotton Division, May 1976.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through October 15, 1976

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness gage		1/8" gage		S A nonlin gage		P & C waste		Yarn quality	
		2.5% span	50/2.5 unif.	Zero gage	Rdg. Pct.	Mpsi	G/tex	Pct.	Pct.	Lbs. 22s	Index Carded Yarn	No.	Yarn No.
Short Staple:													
Southwest	6	1.01	4.6	4.4	88	23	3.4	5.8	104	113	11	48	
1975	7	.96	4.4	4.4	83	20	2.8	7.1	83	113	12	36	
Medium Staple:													
South Central	6	1.11	4.6	4.8	88	24	2.9	5.1	99	102	19	54	
1975	3	1.10	4.6	4.3	88	22	2.9	5.9	112	107	15	59	
1976													
Southwest	21	1.08	4.5	4.3	81	22	2.9	4.7	103	99	22	58	
1975	22	1.07	4.5	4.2	81	22	3.1	6.0	105	99	19	58	
1976													
Significant difference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1976.

Production Area, Classification		Fiber Test Results										Processing Test Results - Carded Yarns														
		Digital Fibrograph		Mike		Fiber Strength		Elongat'n 1/8"		S.A. Non-lint		Color Raw Stock P & C		Strength		Elongation		Appearance Index		Imprfect's		Spin. Potential				
Sample Number	Grade	2.5% span	Unif span	Zero Gage	1/8" Gage	Mps <i>1</i>	G/tex	Pct	Pct	No	No	74	74 tx	27	27 tx	74	74 tx	27	27 tx	8s or 22s or 22sor	8s or 22s or 22sor	8s or 22s or 22sor	No	No	No	No
No	Name & Code	32s	In	In	Pct	Rdg	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	No	No	No	No		
SOUTHWEST AREA																										
CENTRAL TEXAS																										
1	BRANOON	SLM LT SP	42	31	0.98	45	4.3	79	20	6.8	3.1	2	4	6.8	307	89	7.7	6.0	130	120	11	9	42			
1	ITALY	MID LT SP	32	30	0.92	42	4.4	82	19	5.6	2.5	2	4	6.7	283	78	6.8	5.5	130	110	14	10	31			
1	ITASCA	SLM LT SP	42	31	0.98	45	4.6	87	21	5.4	2.9	2	4	7.9	296	83	6.4	5.1	130	110	22	17	35			

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976

Production Area, Classification & Sample Number				Fiber Test Results								Processing Test Results - Carded Yarns								
				Digital Fibrograph		Fiber Strength		S.A. Elongat'n 1/8"		Color Raw Stock		Strength P & C Waste		Elongation		Appearance Index		Imperfect'ns		
No	Grade	Staple span	2.5% Unif.	Mike Gage	Zero Gage	1/8"	Gage	Non-Lint	Gra	Yel	22s or 27 tx	50s or 27 tx	22s or 27 tx	50s or 27 tx	22s or 27 tx	50s or 27 tx	No	No	No	No
32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	Pct	No	No	Pct	Pct	Pct	Pct	Lbs	Lbs	No	No	No	No
SOUTH CENTRAL AREA																				
ARKANSAS				STONEVILLE 213								100 PERCENT								80
DRIVER	1 SLM	36	1.11	45	4.2	89	23	6.4	3.5	1	2	6.3	117	38	6.5	4.5	100	80	16	11
OAK RIDGE	1 SLM	34	1.10	46	4.3	88	22	6.3	2.4	1	2	5.5	116	39	6.1	4.3	110	90	19	13
SICILY ISLAND	1 SLM	34	1.08	46	4.4	87	22	5.3	2.7	2	3	6.0	102	32	5.4	3.9	110	100	11	7
SOUTHWEST AREA																				
CENTRAL TEXAS				TAMCOT SP37								100 PERCENT								70
AQUILLA	1 SGD	32	1.01	40	3.1	80	20	6.2	5.6	2	3	9.6	95	28	5.9	3.8	70	60	40	30
BATESVILLE	2 MID	35	1.12	46	4.5	80	22	6.4	1.9	1	3	5.5	101	32	6.4	4.5	100	80	23	15
NAVASOTA	1 MID	35	1.14	45	4.8	81	22	7.1	1.7	1	3	3.9	111	36	6.5	4.7	100	90	13	8

1/ Reduced from 51 because of bark

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